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## Two New Species of *Mikania* (Asteraceae, Tribe Eupatorieae) from Tropical America

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**ABSTRACT.** *Mikania pooleana*, known only from Oaxaca, Mexico, is similar to *M. tonduzii* of Mexico and Central America, but distinguished by its lanceolate leaves and hemispherical glomerules. The latter species has ovate to broadly ovate leaves and spherical glomerules. *Mikania saxicola* of Minas Gerais, Brazil, is characterized by its dense spike-like capitulescence, small heads about 4.5 mm long, and cypselae with forked trichomes. It has affinity to *M. microlepis*, also of Brazil, which is distinguished by its dense fulvous-tomentose nature, larger heads, and lack of forked trichomes.

**Key words:** Asteraceae, Eupatorieae, *Mikania*, tropical America.

***Mikania pooleana*** W. C. Holmes & Vodopich, sp. nov. TYPE: Mexico. Oaxaca: ca. 21 mi. S of Valle Nacional, Hwy. 175 (Tuxtepec–Oaxaca), infrequent vine, with tree ferns, 13 Mar. 1980, J. M. Poole 2247 & J. A. McDonald (holotype, TEX). Figure 1.

Haec species *M. tonduzii* similis sed in foliis lanceolatis differt.

**Twining vines.** Stems terete, striate, glabrate, solid. Leaves lanceolate, 7.5–12 × 1.9–3.6 cm; apex caudate to caudate acuminate, margins entire in the basal half, remotely serrate-denticulate in the upper half, the teeth 0.7–2 cm distant, base acute to acute-acuminate, surfaces glabrate, venation trinervate with a conspicuous pair of lateral nerves separating near 1 cm from the base of the blade, these accompanied by another pair of obscure nerves separating within 5–8 mm of the base of the blade, tertiary nerves obscure, disposed in a slightly antrorse-orientated transverse pattern; petioles 2–2.5 cm long, glabrous. Capitulescence an elongate pyramidal panicle, 19 × 7.5 cm; branchlets glabrate at base, puberulent above; bracts lanceolate to linear, much reduced in size above; capitula ca. 7 mm long, disposed in somewhat dense hemispherical glomerules 2–3 cm diam., ultimately the heads in sessile cluster of threes. Subinvolucral bracts linear, 1–2 mm long, puberulent. Phyllaries

4, elliptic-oblong, ca. 3.5 mm long, the base fused for about 1 mm, surfaces glabrous, apex rounded to obtuse, puberulent. Florets 4. Corollas ca. 6 mm long, white, tube 2–3 mm long, slightly bulbous at base, gradually expanded into the funnellform throat, 2–2.5 mm long, teeth deltate, ca. 0.8 mm long, sparingly glandular. Cypselae tawny, ca. 2 mm long, glabrous, the faces reticulated. Pappus bristles white, 21 to 33, ca. 4.5 mm long, margins scabrid, apex slightly thickened.

In Holmes (1990), this new species keys to the vicinity of *Mikania tonduzii* B. L. Robinson and *M. globosa* Coulter, which appear to be its nearest relatives. These two species have ovate to broadly ovate leaves and heads disposed in very dense spherical glomerules. In contrast, *Mikania pooleana* has lanceolate leaves and hemispherical glomerules. Additionally, *M. globosa* has phyllaries that completely envelop the adjoining floret it subtends. The ultimate disposition of the capitula in sessile clusters of threes is unusual for *Mikania* with pyramidal capitulescences. This arrangement is typical of the *Mikania parviflora* (Aublet) Karsten complex (Robinson, 1922a). Additional characteristics of this complex are corymbose capitulescences and densely hirsute style appendages and bases. *Mikania pooleana* has none of these traits, which suggests that this head arrangement arose independently in other *Mikania* and does not indicate relationship.

Using the classification proposed by Holmes (1996), *Mikania pooleana* is in *Mikania* sect. *Mikania*. This is determined from its subinvolucral bracts that are borne at the very base of the involucre and from the maturation pattern of the capitula of the hemispherical glomerules from the center to the periphery.

*Mikania pooleana* is known only from the type material.

We are privileged to name this species to commemorate the collector, Jackie M. Poole. Poole, an employee of Texas Parks and Wildlife Department, has been a pre-eminent botanist concerned with preserving the native flora of Texas.



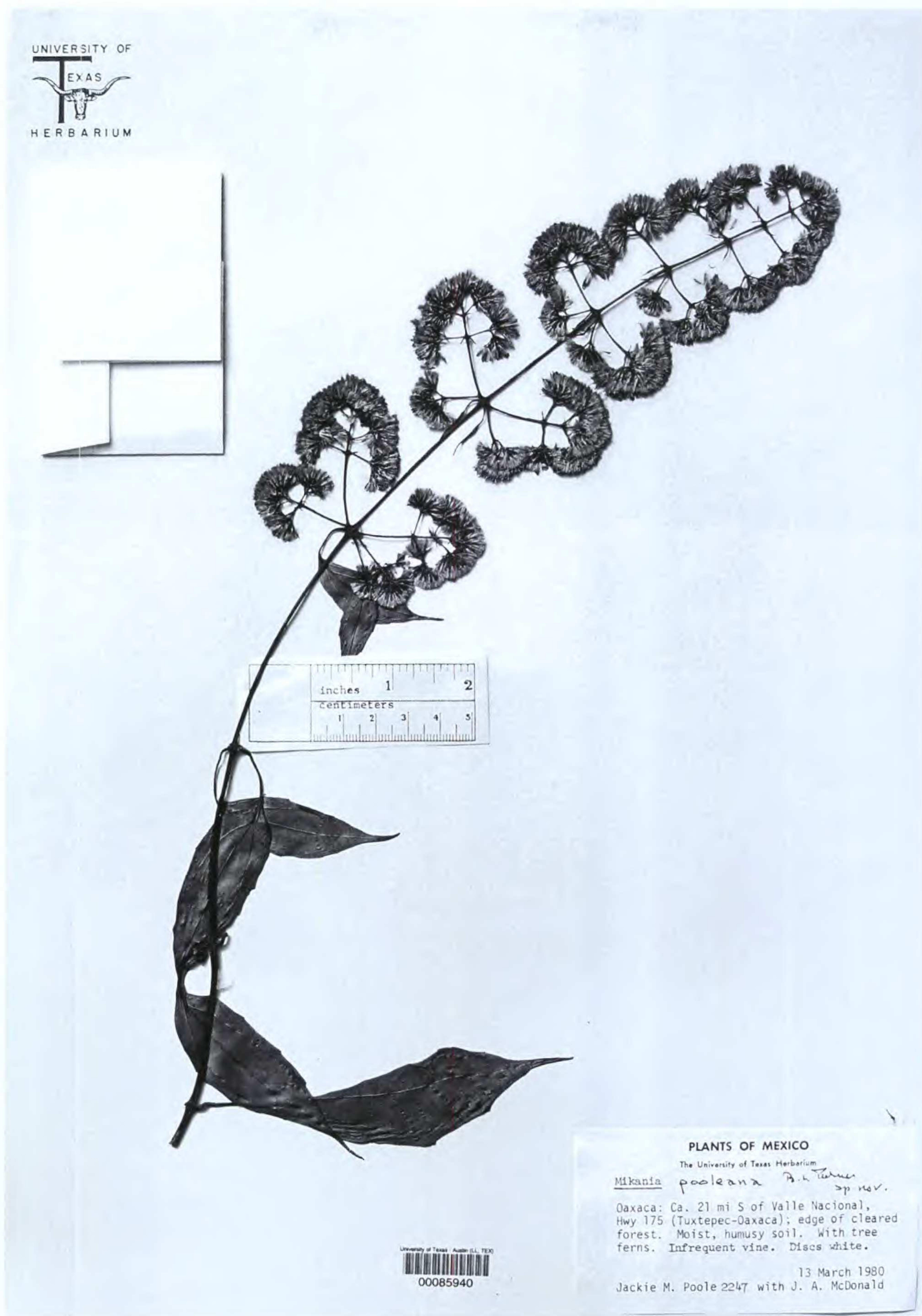


Figure 1. Photograph of the holotype of *Mikania pooleana* W. C. Holmes & Vodopich.

***Mikania saxicola*** Schultz-Bip. ex W. C. Holmes & Vodopich, sp. nov. TYPE: Brazil. Minas Gerais, Serra do Chapada, June 1827, *L. Riedel s.n.* (holotype, NY). Figure 2.

Haec species *M. microlepis* similis sed in planta glabra differt.

Semiwoody vine. Stems terete, striate-costate after drying, glabrous. Leaves deltate, 3.5–6 × 2.4–



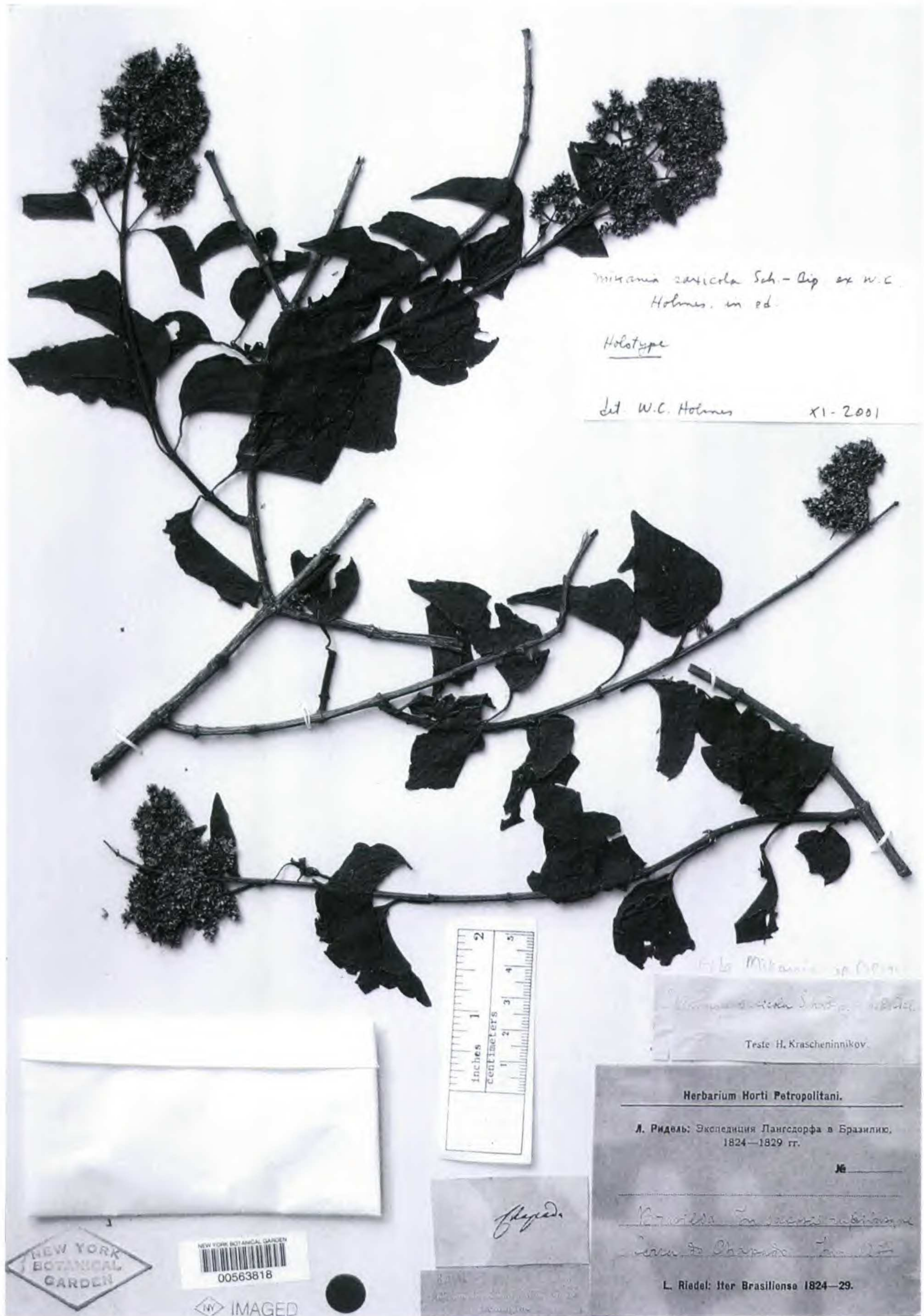


Figure 2. Photograph of the holotype of *Mikania saxicola* Schultz-Bip. ex W. C. Holmes & Vodopich.

3.5 cm, apex acute to a rounded point, margins entire, occasionally with two bluntish-rounded basal lobes to ca.  $3 \times 5$  mm, base cuneate, palmately 3- to 5-nerved from insertion of the petioles; surfaces glabrous, reticulate, the lower surface densely

glandular; petioles 0.8–1.7 cm long, glabrate. Capitulescence paniculate, dense,  $7 \times 4.5$  cm; branchlets irregularly angled to subterete, puberulent, glandular; bracts at base of capitulescence similar to leaves but reduced in size, those at summit lin-



ear. Capitula ca. 4.5 mm long, ultimately disposed in spikelike racemes ca. 5 mm long, usually numbering 4 to 6 capitula. Subinvolucral bracts lance-elliptic, ca. 1.5 mm long, puberulent, glandular, apex acute. Phyllaries obovate, 1.8–2 mm long, glabrate to puberulent, sparingly glandular, margins in the distal half finely serrate-ciliate. Corollas ca. 2.2 mm long; tube ca. 0.8 mm long, throat funnelform to semicampanulate, ca. 1 mm long, lightly glandular; teeth deltate-ovate, ca. 0.2 mm long, glandular. Cypselae ca. 1.5 mm long, puberulent, densely so at the summit, the trichomes sometimes forked or branched at the apex. Pappus bristles white, 1–1.4 mm long, 15 to 20, margins scabrid, apex occasionally slightly thickened.

*Mikania saxicola* is characterized by its congested capitulescence with the capitula borne in short spikelike racemes, heads ca. 4.5 mm long, which is small for the genus, and presence of branched or forked trichomes on the cypselae. The latter trait is very unusual in the genus and in the Eupatorieae, being reported by Holmes and Pruski (2000) as dendroid pubescence in *M. wurdackii* Pruski & W. C. Holmes. Similar trichomes are also known from *M. citriodora* W. C. Holmes (Holmes, 1991) and from *M. grazielae* R. M. King & H. Robinson (King & Robinson, 1980), both of Brazil. In these two species, the forked trichomes appear to represent an additional and modified pappus, since they are borne primarily near the summit of the cypselae. However, the forked trichomes of *M. saxicola* occur on all parts of the cypselae.

The disposition of capitula into short spike-like racemes indicates that the species belongs to *Mikania* sect. *Summikania* W. C. Holmes (Holmes, 1996). In Barroso's (1959) treatment of the *Mikania* of Brazil, *M. saxicola* could be included in section *Globosae* B. L. Robinson (Robinson, 1922b) because of its densely congested capitulescence, or, with equal facility, in section *Spicato-racemosae* Baker (Baker, 1876), because of disposition of the heads into short spike-like racemes. This ambiguity, which is responsible for Barroso's classification

not gaining general acceptance, is discussed in Holmes (1996).

*Mikania saxicola* appears similar to *M. microlepis*, also of Brazil. *Mikania microlepis* is characterized by its dense fulvous-tomentose nature, larger heads, and lack of forked trichomes.

*Mikania saxicola* is known only from the type specimen. The holotype was a gift from L to NY presented in about 1990 (John Pruski, pers. comm.). It is not known if duplicates exist at L. The type specimen was annotated as "*Mikania saxicola* Sch.-Bip. in h. Riedel," by H. Krascheninnikov, a name never validated through publication.

*Acknowledgments.* We thank the curators of the herbaria for their loans of specimens that made this study possible. We are also indebted to Billie L. Turner for bringing to our attention that *Poole 2247* (holotype of *Mikania pooleana*) was an undescribed species. Also, John Pruski provided information about the type specimen of *Mikania saxicola*.

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